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Notice of Allowability	Application No.	Applicant(s)	
	10/671,283	FREAKES, ANTHONY	
	Examiner	Art Unit	
	Truc T. T. Nguyen	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *an interview on 1/19/05*.

2. ☒ The allowed claim(s) is/are *1,2,4-6,8-11, 13-31 and 34-39*.

3. ☒ The drawings filed on *25 September 2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/9/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *1/19/05* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TRUC T. NGUYEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Timothy X. Gibson on January 19, 2005.

The application has been amended as follows:

- Please cancel claims 3, 7, 12, 32-33, and 37.
- Please amend claims 1, 4-6, 8-11, 13-14, 15-20, 26, 28, 30, 34-36, and 38-39.
- Please add new claim 39, this claim was omitted during scanning.

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1. An electrical connector comprising:

a substantially planar body;

at least a first slot formed in the planar body and oriented in a selected direction;

said first slot adapted to conductively engage a first wire inserted therein; at least a second slot formed in the planar body and oriented in a direction substantially parallel and opposite to the selected direction; and

said second slot adapted to conductively engage a second wire inserted therein;

wherein said first slot comprising an open end, a closed end and at least two opposing walls and at least one tang extending from the closed end toward the open end, said tang having an end not attached to either of said walls and adapted to conductively engage said wire;

wherein said second slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot;

[such that] wherein the first wire and the second wire are insert though the first and second slot and in electrical contact with one another through the planar body.

4. An electrical connector of claim [3] 1, said at least one tang comprising two tangs.

5. A method of using an electrical connector of claim [3] 4, comprising placing a wire having a single conductive strand and an insulative covering in between said two tangs, such that the tangs pierce the insulative covering and become electrically connected to said single conductive strand.

6. A method of using an electrical connector of claim [3] 4, comprising placing a wire having multiple conductive strands and an insulative covering about said two tangs, such that said tangs pierce the insulative cover and multiple conductive strands are dispersed about a surface of each said tang, become electrically connected to each said tang,

8. An electrical connector of claim [7] 1, said walls being movably adaptable about said wire.

9. A method of manipulating walls of an electrical connector of claim [7] 1 comprising the steps of placing at least one wire into said at least one slot and bending said opposing walls about said wire such that it is retained in the slot.

10. An electric connector of claim [7] 1, at least one of said walls comprising a protrusion toward the opposite wall.

11. An electric connector of claim [7] 10, [according to] said protrusion comprising a hook.

13. An electrical connector of claim [12] 1, said blades having a notch located along a length adjacent to an opposite blade.

14. An electrical connector of claim [12] 1, said blades adapted to be [are] manipulated toward each other such that each blades is capable of maintaining a spring load.

15. A method of manipulating blades of an electrical connector of claim [3] 1, comprising the steps of placing a tool in a cavity formed between a blade and an opposing wall; and moving

the tool such that it engages the blade and manipulates it toward an opposite wall.

16. The method of claim 15, comprising moving the tool [moving] in a substantially linear direction [motion].

17. The method of claim 15, comprising moving the tool [moving] in an arching motion.

18. [A] The method of [claim manipulating a blade of] claim [3] 15, comprising moving the electrical connector about the tool such that the blade engages the tool which manipulates the blade toward an opposite wall.

19. The method of claim 18, comprising moving said connector [moved] about the tool in a substantially linear direction [motion].

20. The method of claim 18, comprising moving said connector [is moved] about the tool in an arching motion.

26. The electrical connector of claim 22, at least one [each] lateral edge further [comprises] comprising a protrusion located between the two ends.

28. The electrical connector of claim [23] 24, at lest one lateral edge further [comprises] comprising a protrusion located between the indentation and the end adjacent to the opposing

slot.

30. An electrical connector comprising:

a substantially planar body;

at least a slot formed in the planar body and oriented in a selected direction;

said slot adapted to conductively engage a wire inserted therein;

at least a prong formed in the planar body and oriented in a direction substantially parallel and opposite to the selected direction; and

said prong adapted to conductively engage a printed circuit board to which it is inserted;

wherein said slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot;

wherein [such that] the wire and the printed circuit board are in electrical contact with one another through the planar body.

31. A strip of at least two electrical connectors comprising for connecting two wires:

a strip of conductive material stamped into at least two electrical connectors[,];

said connectors directly adjacent to each other such that there are no pieces of material between them that are not part of one of said connectors[.];

wherein the connector is a substantially planar body comprising:

at least a first slot formed in the planar body and oriented in a selected direction to engage the first wire therein; and

at least a second slot formed in the planar body and oriented in a direction substantially parallel to the selected direction;

wherein said first slot comprising an open end, a closed end and at least two opposing walls and at least one tang extending from the closed end toward the open end, said tang having an end not attached to either of said walls;

wherein said second slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot.

34. A method for placing at least two wires into an electrical connector containing at least two slots oriented in a direction substantially parallel and opposite to each other, comprising the steps of:

placing said at least two wires substantially parallel to each other;

spacing said at least two wires such that each wire is aligned with a slot of an electrical connector;

aligning said electrical connector such that each said slot is open toward said wires; and

applying force to said connector in a direction of said wires[.];

wherein the connector is a substantially planar body comprising:

at least one first slot comprising an open end, a closed end and at least two opposing walls and at least one tang extending from the closed end toward the open end, said tang having an end not attached to either of said walls;

at least one second slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot;

wherein the wires are inserted into the slot and in electrical contact with one another through the planar body.

35. A method for placing at least two wires into an electrical connector containing at least two slots oriented in a direction substantially parallel and opposite to each other, comprising the steps of:

placing said at least two wires substantially parallel to each other;

spacing said at least two wires such that each wire is aligned with a slot of an electrical connector;

aligning said electrical connector such that each said slot is open toward said wires;

and applying force to said wires in a direction of said connector[.];

wherein the connector is a substantially planar body comprising:

at least one first slot comprising an open end, a closed end and at least two opposing walls and at least one tang extending from the closed end toward the open end, said tang having an end not attached to either of said walls;

wherein said second slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot.

wherein the wires are inserted into the slot and in electrical contact with one another through the planar body.

36. A method for placing at least two wires into an electrical connector containing at least two slots oriented in a direction substantially parallel and opposite to each other, comprising the steps of:

placing said at least two wires substantially parallel to each other;

spacing said at least two wires such that each wire is aligned with a slot of an electrical connector;

aligning said electrical connector such that each said slot is open toward said wires;

and applying force to said each wire in a direction of said connector[.];

wherein the connector is a substantially planar body comprising:

at least one first slot comprising an open end, a closed end and at least two opposing walls and at least one tang extending from the closed end toward the open end, said tang having an end not attached to either of said walls;

at least second slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot.

wherein the wires are inserted into the slot and in electrical contact with one another through the planar body.

38. A method for placing at least one wire and at least one printed circuit board into an electrical connector containing at least one slot and at least one prong oriented in a direction substantially parallel and opposite to each other, comprising the steps of:

placing said at least one wire substantially parallel to said at least one printed circuit board;

spacing said at least one wire such that it is aligned with [a] the slot;

spacing said at least one printed circuit board such that it is aligned with [ ] the prong;

aligning said electrical connector such that [each] said slot is open toward said at least one wire and such that [each] said prong is extended toward said at least one printed circuit board;

and applying force to said [each] wire and said [each] printed circuit board in a direction [of] to said connector[.];

wherein the connector is a substantially planar body comprising:

said prong;

said slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall;

wherein the free ends of the blades do not attached to the closed end of the second slot.

wherein the wire is inserted into the slot and in electrical contact with the printed circuit board through the planar body.

39. An electrical connector of claim 1, said blades having blade lateral edges containing rounded edges.

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2. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach a planar connector having one slot comprising an open end, a closed end and opposing walls, with at least two blades with free ends protruding from the open end toward the closed end, such that each blade forms a cavity between itself and the wall. The free ends of the blades do not attached to the closed end of the slot.

The prior art of record also fails to teach the wire inserted into the slot and in electrical contact with the printed circuit board through the planar body connector.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. T. Nguyen whose telephone number is 571-272-2011. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 571-272-2800 extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Truc T. T. Nguyen
Primary Examiner
Art Unit 2833